

Application No. 09/942,790

ASPN 1003-1

REMARKS

In the Official Action mailed 18 May 2005, the Examiner objected to the Abstract. The Examiner reviewed claims 1-26. The Examiner has rejected claims 1, 4-9, 17-19 and 21-26 under 35 U.S.C. §102(c); has rejected claim 2 under 35 U.S.C. §103(a); has rejected claims 16 and 20 under 35 U.S.C. §103(a); and has objected to claims 3, 10-15, 21, 24 and 25 as being dependent on a rejected base claim.

Applicant has amended claims 1, 11, 21, 24 and 25. Claims 1-26 remain pending.

The Examiner's objection and rejections are respectfully traversed below.

Objection to the Abstract

The Examiner has objected to the Abstract. The Abstract has been amended above as suggested by the Examiner.

Accordingly, reconsideration of the objection to the Abstract is respectfully requested.

Rejection of Claims 1, 4-9, 17-19 and 21-26 under 35 U.S.C. §102(e)

The Examiner has rejected claims 1, 4-9, 17-19 and 21-26 under 35 U.S.C. §102(e), as being anticipated by Daly (US Patent No. 6,748,021). Applicant has amended claims 1, 21, 24 and 25 as set forth above to clarify the claim, so that it explicitly states that the information in the header comprises "at least an indication of the subscriber terminal for which the corresponding data portion of the frame is destined." Claim 11 has been amended in light of the change to claim 1.

This amendment is supported by the application documents as originally filed, including, for example, the wording found in claim 11, and the text at page 3, lines 20 to 26, of the application as originally filed.

As discussed on page 2, lines 16 to 18, of the application as originally filed, an aim of the present invention is to provide a transport mechanism which enables more efficient transmission of data through a telecommunications system. In accordance with the present invention, the telecommunications system provides a number of communication channels for transmission of data between the central terminal and the subscriber terminals. There is no fixed relationship between a particular subscriber terminal and any particular communication channel recited in the claims. Indeed any particular data message does not need to be sent over one particular communication channel, but instead can be split up with different parts of the data message being

Application No. 09/942,790

ASPN 1003-1

sent on different communication channels within the scope of the claim. See claim 1, lines 10 to 12, where it generically mentioned that the transmitter within the central terminal sends "a data message destined for a particular subscriber terminal over at least one of the communication channels as a number of data blocks".

Whilst such an approach leads to efficient use of the communication channels, it presents a problem for the subscriber terminal, in that it is necessary for the subscriber terminal to identify whether data being transmitted over a communication channel is destined for it, or instead is destined for some other subscriber terminal. In accordance with the present invention, this problem is alleviated by the frame structure of claim 1. In particular, each data block is generated as a number of frames, and each frame has a header portion and a data portion. The header portion is arranged to be transmitted in a fixed format chosen to facilitate reception of the header portion by each subscriber terminal, and is arranged to include a number of control fields for providing information about the data portion. In particular, as now clarified by the amended claim 1, that information comprises at least an indication of the subscriber terminal for which the corresponding data portion of the frame is destined. Accordingly, as discussed on page 3, lines 20 to 29, this provides a particularly efficient technique for notifying subscriber terminals whether a data portion is destined for them, without the need for any subscriber terminal to begin processing the data portion itself in order to determine that information. Any subscriber terminal to which the data portion is not destined can merely ignore the data portion provided in that frame, thereby leaving the data portion to be processed by the subscriber terminal(s) to which that data portion is destined.

In contrast to the header portion, the data portion of the frame is arranged to be transmitted in a variable format selected based on predetermined criteria relevant to the particular subscriber terminal to which the data portion is destined. As discussed on page 4, lines 1 to 3, a variable format can hence be selected which is aimed at optimizing the efficiency of the data transfer to the subscriber terminal.

The Examiner has cited US 6,748,021 (hereafter referred to as D1), and has argued that claim 1 is not novel having regards to the teaching of D1. As pointed out by the Examiner, at column 8, lines 54 to 60 of D1, when discussing the bottom part of Figure 7, it is identified that a physical layer header is preappended to the physical payload, and this header is always allocated a default modulation. Hence, the physical header has a default modulation, and as shown in Figure 7 the physical payload has a variable modulation. As also described at column 8, lines 58

Application No. 09/942,790

ASPN 1003-1

to 60, the header includes a preamble, a sync sequence, and information stating the modulation and coding applied to the following physical payload. However, nowhere in DI is there any indication that the header portion contains information identifying the subscriber terminal for which the corresponding data portion of the frame is destined. Indeed, from the teaching of DI, it appears that a recipient subscriber terminal (or CPL as it is referred to in DI) always demodulates both the header and the payload upon receipt. For example, at column 9, lines 3 to 8, it is stated that at the CPL the information in the physical header is recovered using the default modulation, and then the physical payload is recovered by demodulation using the demodulation and coding scheme set out in the physical header. Given that both parts are always demodulated in accordance with the DI technique, there would be no perceived benefit in providing within the header an indication of the subscriber terminal to which the corresponding data portion is destined.

The corresponding other independent claims 21, 24 and 25 have been amended in an identical manner, and we would submit that they are novel for the same reasoning as presented above with regards to claim 1.

Given that we believe the amended independent claims should be allowable, we do not believe it necessary to comment individually on the various objections raised by the Examiner to the dependent claims.

Accordingly, reconsideration of the rejection of claims 1, 4-9, 17-19 and 21-26 as amended is respectfully requested.

Rejection of Claim 2 under 35 U.S.C. §103(a)

The Examiner has rejected claim 2 Under 35 U.S.C. §103(a) as being unpatentable over Daly (US Patent No. 6,748,021) in view of Masters et al. (US Patent No. 6,330,278). Claim 2 is patentable for at least the same reasons as claim 1, from which it depends, and because of the unique combination recited.

Accordingly, reconsideration of the rejection of claim 2 as amended is respectfully requested.

Rejection of Claims 16 and 20 under 35 U.S.C. §103(a)

The Examiner has rejected claims 16 and 20 under 35 U.S.C. §103(a) as being unpatentable over Daly (US Patent No. 6,748,021) in view of Schneider (US Patent No.

Application No. 09/942,790

ASPN 1003-1

6,570,871). Claims 16 and 20 are patentable for at least the same reasons as claim 1, from which they depends, and because of the unique combination recited.

Accordingly, reconsideration of the rejection of claims 16 and 20 is respectfully requested.

Objection to Claims 3, 10-15, 21, 24 and 25

The Examiner has objected to claims 3, 10-15, 21, 24 and 25 as being dependent upon a rejected base claim, but has indicated they would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. We note the typographical error, as claims 21, 24 and 25 had been rejected by the Examiner.

As to claims 3 and 10-15, reconsideration of the objection is requested in light of the allowability of claim 1 as amended.

Accordingly, reconsideration of the objection to claims 3, 10-15, is respectfully requested.

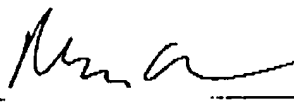
CONCLUSION

It is respectfully submitted that this application is now in condition for allowance, and such action is requested.

The Commissioner is hereby authorized to charge any fee determined to be due in connection with this communication, or credit any overpayment, to our Deposit Account No. 50-0869 (ASPN 1003-1).

Respectfully submitted,

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